

ABSTRACT OF THE DISCLOSURE

The magnetic bearing control device (1) has a motor drive circuit (13) provided with an inverter (13a) for driving the motor (4) capable of generating an electric power, the inverter
5 being controlled by an inverter control circuit (14), and an over-speed detection circuit (17) for detecting the number of revolutions of the rotor (3) that is being rotated by the motor (4), the rotor being supported in non-contact manner by a magnetic bearing (5). When the over-speed detection circuit
10 (17) detects that the rotor (3) is being rotated at a preset number of revolutions or more, the motor drive circuit (13) performs a switching operation of a switch portion 13c provided in the motor drive circuit (13) to separate the inverter (13a) from the motor (4) and connect the motor (4) to a regenerative
15 circuit (13b), whereby the magnetic bearing (5) is driven and controlled, employing a regenerative electric power of the motor (4).